

**PROCUREMENT CARD (PCard) AND LOW VALUE PURCHASES  
RESTRICTED ITEMS, CHEMICALS AND GASES  
October 2003**

<p>Acid storage cabinets</p> <p>Advertising to Promote the University</p> <p>Alcohol (Ethyl)</p> <p>Auditing services by CPA's</p> <p>Automotive Accessories</p> <p>Automotive Rental</p> <p>Background Checks and Degree Verifications</p> <p>Beverage, Alcohol</p> <p>Bindery Services</p> <p>Biological agents(see attached list)</p> <p>Biosafety cabinets</p> <p>Bonds (other than construction, performance, labor, and material bonds)</p> <p>Breathing Apparatus</p> <p>Business cards</p> <p>Cameras Digital, Still &amp; Video (Restricted from PCard only)</p> <p>Carpets</p> <p>CD Recorders (Restricted from PCard only)</p> <p>Chairs</p> <p>Chemical Storage Cabinets</p> <p>Chemicals (selected chemicals see attached lists)</p> <p>Computers, CPU's, Sensitive Property (Restricted from PCard only, exception: Micron &amp; Dell contracts)</p> <p>Conferences, all types – including reservations for conferences or hosted by the Laboratory</p> <p>Construction work, including on University-owned Buildings (e.g. Campus Buildings: Donner, Hearst, etc.)</p> <p>Consultants (Expert Technical Assistance)</p> <p>Contributions &amp; Donations</p> <p>Controllable property – equip \$5k and above + life expectancy &gt;2 yrs.</p> <p>Copy machines</p> <p>Copying (Photo)</p> <p>Corrosive storage cabinets</p> <p>Decorative Items</p> <p>Degree Verifications and Background Checks</p> <p>Deposits (cylinders, reels, etc.)</p> <p>Deuterium gas (D2)</p> <p>Dictating Recorders (Restricted from PCard only)</p> <p>Draperies</p> <p>Drench hoses</p> <p>Drug Precursors (see attached list)</p> <p>Duplicating Services</p> <p>Dust masks (see attached note on dust masks)</p>	<p>DVD Recorders (Restricted from PCard only)</p> <p>Eavesdropping devices</p> <p>Electron microscopes</p> <p>Entertainment expense</p> <p>Equipment Producing Ionizing and Non-Ionizing Radiation</p> <p>Excess materials</p> <p>Explosives (see attached list)</p> <p>Eyewashes</p> <p>Fabrications (based on drawings, etc.)</p> <p>Family Radio Service</p> <p>Fasteners, grade 5 and above – hex head cap screws</p> <p>Filtering equipment used to control airborne contaminant emissions (e.g., HEPA filters)</p> <p>Fines or penalties caused by willful misconduct</p> <p>Fire Extinguishers</p> <p>Flammable storage cabinets</p> <p>Food for employees/meetings</p> <p>Foreign origin, material value &gt;\$2,500 unless previously approved by a Procurement Supervisor</p> <p>Framing for personal use</p> <p>Freezers</p> <p>Fume hoods</p> <p>Furniture, household, office-quarters, chairs, filling cabinets</p> <p>Gas cabinets</p> <p>Gases (see attached list)</p> <p>Gifts</p> <p>Glove boxes</p> <p>Heavy water (D20)</p> <p>Helium</p> <p>HEPA Filtered Vacuum cleaners and attached filtering</p> <p>Hoods</p> <p>Hoods, lab fume</p> <p>Hospitals and related medical services</p> <p>Housing</p> <p>Instruments containing radioactive sealed sources (see attached list)</p> <p>Insurance (including value declarations)</p> <p>Intra-University Transactions (UC Regents Orders)</p> <p>Journal Reprints</p> <p>Laminar airflow hoods</p> <p>Lasers (excluding laser pointers)</p> <p>License fees</p> <p>Lobbying costs</p> <p>Lodging costs</p>	<p>Luxury Items (e.g. leather bound desk accessories, grades above what is absolutely necessary to accomplish the Lab's mission)</p> <p>Machine tools (e.g. large lathes, etc.)</p> <p>Memberships in social, dining, or country clubs</p> <p>Memberships in trade, business and professional organizations (unless included on the Lab's Organizational Membership list –approved by DOE)</p> <p>Microwave and Radiowave Sources (See attached list)</p> <p>Narcotics</p> <p>Office Equipment Repairs (Typewriters, Calculators, etc.)</p> <p>On-Site Service, repairs etc., not included on the Designated Commercial Services list and/or in a hazard work area (restricted - all construction related work including fencing, roofing, carpet, window replacement, etc.)</p> <p>Ornamental items (pictures, plants, etc.)</p> <p>Over the Counter Medications, (aspirin, etc.)</p> <p>Ozone Depleting Substances (See attached list for Trade/Chemical Name)</p> <p>Pagers</p> <p>Permits</p> <p>Personal Data Assistants /PDA/ all Personal Digital Assistants &amp; Organizers with a PC Connection /Hand Held Computers/ regardless of value (Restricted from PCard only)</p> <p>Personal Property (items of a personal nature, e.g. microwave oven, coffee pot, radio, refrigerators, etc.)</p> <p>Personal property for employees (reimbursement due to loss)</p> <p>Photocopying</p> <p>Precious metals (gold, iridium, osmium, palladium,</p>
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<p>platinum, rhodium, ruthenium, and silver)</p> <p><b>Printers (Restricted from PCard only)</b></p> <p><b>Printing equipment</b></p> <p><b>Printing services</b></p> <p><b>Promotional items, memorabilia, models, gifts, and souvenirs</b></p> <p><b>Property, controllable (see controllable property)</b></p> <p><b>Radioactive materials and isotopes (see attached list)</b></p> <p><b>Radio Frequency Spectrum Dependent Devices (portable, mobile, microwave, CB's, family radio service, 2 way radios). Used for communication.</b></p> <p><b>Reactive chemicals (see attached list)</b></p> <p><b>Real Property (land, buildings, lease, purchase or improvements)</b></p> <p><b>Recorders /CD, DVD, Dictating &amp; Video/ (Restricted from PCard only)</b></p> <p><b>Recreational equipment</b></p> <p><b>Refrigerators</b></p> <p><b>Reprints, Journal</b></p> <p><b>Respirators (See attached note on dust masks)</b></p> <p><b>Rigging Equipment (e.g. slings, lifting equipment, etc.)</b></p> <p><b>Royalties on Patents</b></p> <p><b>Safety Shoes</b></p> <p><b>Safety Showers</b></p> <p><b>Sales or exchange of Government property (see Trade-ins)</b></p> <p><b>SANR</b></p> <p><b>Scales, Industrial (Calibration Certification requirements)</b></p> <p><b>Scanners for computers (Restricted from PCard only)</b></p> <p><b>Sensitive Items (Computers, Cameras, Video Projectors, Printers, Recorders (CD, DVD, Dictating &amp; Video), Scanners for Computers, Video Cameras (TV, Movie &amp; Video), Personal Data Assistants (PDA's – hand held computers) (Restricted from PCard only)</b></p> <p><b>Services (on-site Berkeley Lab) see On-Site Services</b></p> <p><b>Signs containing tritium</b></p> <p><b>Slings</b></p> <p><b>Telecommunications/Telephone Equipment (e.g. pagers, headsets,</b></p>	<p><b>remote access services to Lab) (Restricted from PCard only)</b></p> <p><b>Trade-ins</b></p> <p><b>Training Classes (on-site Berkeley Lab)</b></p> <p><b>Transportation</b></p> <p><b>Travel</b></p> <p><b>UC Regents Orders (Intra-University Transactions)</b></p> <p><b>X-ray equipment including accessory devices</b></p> <p><b>Vacuum cleaners HEPA Filtered and attached filtering</b></p> <p><b>Video Cameras – TV, Movie &amp; Video (Restricted from PCard only)</b></p> <p><b>Video Projectors portable (Restricted from PCard only)</b></p> <p><b>Video Recorders (Restricted from PCard only)</b></p> <p><b>Wireless networking access points</b></p> <hr/> <p><b>DRUG PRECURSORS</b></p> <p>1,2-(Methylenedioxy)-4-(2-propenyl)benzene (#22)</p> <p>1,2-(Methylenedioxy)-4-(1-propenyl)benzene (#23)</p> <p>1-alpha-[1-(ethylmethylamino)ethyl]benzylc alcohol (#32)</p> <p>1-Ethylephedrine (#32)</p> <p>1-Phenyl-2-methylaminopropanol (#33)</p> <p>1-Phenyl-1-hydroxy-2-methylaminopropane (#33)</p> <p>1-Phenyl-2-keto-propane (#1)</p> <p>2,4,6-Trihydroxy-primidine (#9)</p> <p>2-Aminobenzoic Acid (#14)</p> <p>2-Carbomethoxy-3-tropanone (#21)</p> <p>2-Keto-3-phenyl-propane (#1)</p> <p>2-Methylamino-1-phenyl-1-propanol (#33)</p> <p>2-Methylethylamino-1-phenyl-1-propanol (#32)</p> <p>2-N-Acetyl-2-aminobenzoic Acid (#11)</p> <p>2-phenylacetic Acid (#13)</p> <p>3,4-(Methylenedioxy)-benzene - Any compounds with this in it. (#24)</p> <p>3,4-(Methylenedioxy)-5-benzaldehyde (#24)</p> <p>3-(2-aminoethyl)-indole (#27)</p> <p>4-[2-(Dimethylamino)-1-hydroxyethyl]-1,2-benzenediol (#31)</p> <p>9,10-didehydro-6-methylergoline-8-beta-carboxylic Acid (#4)</p> <p><b>- A -</b></p> <p>Adrenalin (#18)</p> <p>Aminobenzoic Acid - Any chemicals with this in it. (#14)</p> <p>Amino-benzyl alcohol (#18)</p>	<p>Amino-N-acetylbenzoic Acid (#11)</p> <p>Anthranilamide (#14)</p> <p>Anthranilic Acid - Any chemicals with this in it, e.g. Anthranilic Ethyl Ester. (#14)</p> <p>alpha-aminoethyl-3,4-dihydroxy-benzyl alcohol (#18)</p> <p>alpha-hydroxy-beta-methylaminopropylbenzene (#33)</p> <p>alpha-toluene cynide (#29)</p> <p>alpha-tolunitrile (#29)</p> <p>alpha-(1-aminoethyl)-benzyl alcohol (#18)</p> <p>alpha-(3,4-Dihydroxyphenyl)-2-dimethylaminoethanol (#31)</p> <p>alpha-[1-Methylamino)ethyl]benzyl alcohol (#33)</p> <p>alpha-[1-Ethylmethylamino)ethyl]benzenemethanol (#32)</p> <p>alpha-[1-(Methylamino)ethyl]benzene methanol (#33)</p> <p>alpha-[(Dimethylamino)methyl]-3,4-dihydroxy benzylalcohol (#31)</p> <p><b>- B -</b></p> <p>Barbital (#9)</p> <p>Barbitone (#9)</p> <p>Barbituric Acid - Any chemicals listed with Barbituric Acid. (#9)</p> <p>Benzeneacetoneitrile (#29)</p> <p>Benzyl Cyanide (#29)</p> <p>Bromocryptin (#5)</p> <p><b>- C -</b></p> <p>Chloroephedrine (#33)</p> <p>Chloropseudoephedrine (#35)</p> <p><b>- D -</b></p> <p>Diethylmalonate (#6)</p> <p>Diethylmalonic Acid (#8)</p> <p>d-Lysergic Acid (#4)</p> <p><b>- E -</b></p> <p>Ephedrine</p> <p>Ephedrine - Any chemical with this in it. (#33)</p> <p>Ergo - Any chemical name with this in it, e.g. Bromo-alpha-ergocrypt. (#20)</p> <p>Ergo - Any compounds with this in it. (#30)</p>
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<p>Ergonovine Maleate (#30) Ergot - Any chemical name with this in it, e.g. Bromo-alpha-ergocrypt. (#20) Ergotamine Tartrate (#5) Ethyl Malonic Acid (#8) Ethylamine</p> <p>Ethyl Malonic Acid (#8) Ethylamine Ethylmalonate (#8) etafedrine (#32)</p> <p><b>- H -</b> Hexahydropyridine (#10)</p> <p><b>- I -</b> Isosafrole (#23)</p> <p><b>- L -</b> LSD (#4) LSD-50 (#4) Lyserg- (followed by additional chemical names) (#4)</p> <p><b>- M -</b> Malonic Acid Diethyl Ester (#6) Malonic Acid (#7) Menetryl (#32) Methylamine Morpholine (#15) methylenedioxy- - Any chemicals with this in it. (#24)</p>	<p><b>- N -</b> Norephedrine (#18) Norpseudoephedrine (#18) Norpseudoephedrine (#18) Novedrin (#32) N-Ethylephedrine (#32) N-Methyladrenaline (#31) N-Methylephedrine (#31) N-Methylpseudoephedrine (#33) n-Acetylanthranilic Acid (#11) n-Ethylpseudoephedrine n-(1-phenethyl)-piperidine-4-one n-(1-phenethyl-4-piperidinyl)-aniline</p> <p><b>- O -</b> omega-cyanotoluene (#29) o-Aminobenzoic Acid (#14)</p> <p><b>- P -</b> Phenylacetic Acid (#13) Phenylacetone (#1) Phenylacetone nitrile (#29) Phenylethylamine (#18) Phenylpropanolamine Pheny-2-propanone (#1) Piperidine-HCl or Piperidine-HBr (#10) Piperidine (#10) Piperonal (#24) Propanedioic Acid (#7) Pseudoephedrine Pseudoephedrine - Any chemical with this in it. (#35) Propionic Anhydride</p>	<p>Pyrolidine (#12)</p> <p><b>- S -</b> Safrole (#22) Sulfurous Oxychloride (#28)</p> <p><b>- T -</b> Tetrahydropyrrole (#12) Tetrahydro-1-4-oxazine (#15) Thionyl Chloride (#28) Thionylchloride (#28) Tropan - Any chemicals with this in it (#21) Tropine (#21) Tropine - Any chemicals with this in it. (#21) Tropolone (#21) Tryptamine Hydrobromide (#27) Tryptamine Hydrochloride (#27) Tryptamine (#27)</p> <p><b>- V -</b> Veronal (#9)</p>
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**EH&S – RELATED RESTRICTED ITEMS**

**LABORATORY SAFETY EQUIPMENT  
(Notification: John Seabury ext. 6547)**

<p>Acid storage cabinets Biosafety cabinets Chemical storage cabinets Corrosive storage cabinets Flammable storage cabinets Freezers (for lab use) Fume hoods</p>	<p>Gas cabinets Glove boxes Hoods (for ventilation) Fume hoods Laminar airflow hoods Refrigerators (for lab use) Safety showers</p>
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**HEPA FILTER CONTAINING DEVICES  
(Notification: Betsy MacGowan ext. 2826)**

HEPA filters and HEPA filter devices	HEPA filtered vacuum cleaners
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**DUST MASKS**

(Notification: Betsy MacGowan ext. 2826)

No respiratory protection devices other than disposable dust masks are allowed to be purchased. All other respiratory protection equipment is purchased by the EH&S Industrial Hygiene Group and is distributed to qualified and trained users.

**BIOLOGICAL AGENTS AND BIOTOXINS**

(Approval: Bruce King ext. 2768)

**Restricted "Biological Agents and Biotoxins" include all agents and biotoxins listed below and all Risk Group 3 and 4 biological agents (not listed below).** "Agents" include the agent (i.e., organism) and all sub-units (e.g., genetic elements, recombinant nucleic acids) and strains (e.g., recombinant organisms) of the agents. If needed, risk group classifications for many infectious agents can be found at the American Biological Safety Association web page at <http://www.absa.org/resriskgroup.html> or sometimes the vendor web page (e.g., ATCC at <http://www.atcc.org/TechnicalInfo/HowToReviveCultures.cfm>).

**HHS NON-OVERLAP SELECT AGENTS & TOXINS**

- Crimean-Congo haemorrhagic fever virus
- *Coccidioides posadasii*
- Ebola viruses
- Cercopithecine herpesvirus 1 (Herpes B virus)
- Lassa fever virus
- Marburg virus
- Monkeypox virus
- *Rickettsia prowazekii*
- *Rickettsia rickettsii*
- So. American haemorrhagic fever viruses
  - Junin
  - Machupo
  - Sabia
  - Flexal
  - Guanarito
- Tick-borne encephalitis complex (flavi) viruses
  - Central European tick-borne encephalitis
  - Far Eastern tick-borne encephalitis
  - Russian spring and summer encephalitis
  - Kyasanur forest disease
  - Omsk hemorrhagic fever
- Variola major virus (Smallpox virus)
- Variola minor virus (Alastrim)
- *Yersinia pestis*
- Abrin
- Conotoxins
- Diacetoxyscirpenol
- Ricin
- Saxitoxin
- Shiga-like ribosome inactivating proteins
- Tetrodotoxin

**USDA HIGH CONSEQUENCE LIVESTOCK PATHOGENS AND TOXINS/ SELECT AGENTS (OVERLAP AGENTS)**

- Akabane virus
- African swine fever virus
- African horse sickness virus
- Avian influenza virus (highly pathogenic)
- Blue tongue virus (Exotic)
- Bovine spongiform encephalopathy agent
- Camel pox virus
- Classical swine fever virus
- *Cowdria ruminantium* (Heartwater)
- Foot and mouth disease virus
- Goat pox virus
- Lumpy skin disease virus
- Japanese encephalitis virus
- Malignant catarrhal fever virus (Exotic)
- Menangle virus
- *Mycoplasma capricolum*/ M.F38/*M. mycoides capri*
- *Mycoplasma mycoides mycoides*
- Newcastle disease virus (VVND)
- Peste Des Petits Ruminants virus
- Rinderpest virus
- Sheep pox virus
- Swine vesicular disease virus
- Vesicular stomatitis virus (Exotic)

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**HIGH CONSEQUENCE LIVESTOCK PATHOGENS  
AND TOXINS/ SELECT AGENTS (OVERLAP AGENTS)**

- *Bacillus anthracis*
- *Brucella abortus*
- *Brucella melitensis*
- *Brucella suis*
- *Burkholderia mallei* (formerly *Pseudomonas mallei*)
- *Burkholderia pseudomallei* (formerly *Pseudomonas pseudomallei*)
- Botulinum neurotoxin producing species of *Clostridium*
- *Coccidioides immitis*
- *Coxiella burnetii*
- Eastern equine encephalitis virus
- Hendra virus
- *Francisella tularensis*
- Nipah Virus
- Rift Valley fever virus
- Venezuelan equine encephalitis virus
- Botulinum neurotoxin
- *Clostridium perfringens* epsilon toxin
- Shigatoxin
- Staphylococcal enterotoxin
- T-2 toxin

**LISTED PLANT PATHOGENS**

- *Liberobacter africanus*
- *Liberobacter asiaticus*
- *Peronosclerospora philippinensis*
- *Phakopsora pachyrhizi*
- Plum Pox Potyvirus
- *Ralstonia solanacearum* race 3, biovar 2
- *Sclerophthora rayssiae* var *zeae*
- *Synchytrium endobioticum*
- *Xanthomonas oryzae*
- *Xylella fastidiosa* (citrus variegated chlorosis strain)

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**CLASS I OZONE DEPLETING SUBSTANCES**

(Notification: Pat Thorson ext. 5852)

Ozone depleting substances are found in adhesives, coating, inks, foams, aerosols, fire suppression and explosion protection, air conditioning and refrigeration, and solvent cleaning. The following are Class I, Ozone Depleting Substances:

<u>Trade Name</u>	<u>Chemical Name &amp; Synonyms – Trademark Names</u>	<u>Trade Name</u>	<u>Chemical Name &amp; Synonyms – Trademark Names</u>
<b>CFC-11</b>	<b>Trichlorofluoromethane [75-69-4]</b> Aigofrene Type 1; Arcton 9; Electro-CF 11; Eskimon 11; F11; FC 11; Fluorocarbon 11; Fluorotrichloromethane; Freon-11; Frigen 11; Genetron 11; Halocarbon 11; Halon 11; Isceon 131; Isotron 11; Kaltron 11; Khaladon 11; Ledon 11; Monofluorotrichloromethane, Propellent 11, Trichlorofluoromethane; Trichloromonofluoromethane	<b>CFC-112</b>	<b>1,2-Difluorotetrachloroethane [76-12-0]</b> 1,2-Difluoro-1,1,2,2-Tetrachloroethane; Fluorocarbon 112; Freon112, Halocarbon 112; Refrigerant 112; 1,1,2,2-Tetrachlorodifluoroethane; 1,1,2,2-Tetrachloro-1,2-Difluoroethane
<b>CFC-12</b>	<b>Dichlorodifluoromethane [75-71-8]</b> Algofrene Type 2; Arcton 6; Arcton 12; Difluorodichloromethane; Electro-CF12; Eskimon 12; F 12; FC 12; Fluorocarbon 12; Freon-12; Frigen 12; Genetron 12; Halocarbon 12; Halon 122, Isotron 2; Ledon 12; Propellent 12; R-12; Refrigerant 12; Refrigerant R12	<b>CFC-211</b>	<b>Heptachlorofluoropropane [422-78-6]</b> None
<b>CFC-113</b>	<b>1,1,2-trichloro- 1,2,2-trifluoroethane [76-13-1]</b> Chlorinated Fluorocarbon, Diflon S-3; FC 133; Freon 113; Freon TF (113); Frigen 113 TR-T; Fluorocarbon 113; Genetron 113; Halocarbon 113; Refrigerant 113; Trichlorotrifluoroethane; Trichloro 1,2,2-Trifluoroethane; Trichloro-1,2,2-Trifluoroethane, 1,1,2-; 1,1,2-Trichlorotrifluoroethane; 1,1,2-Trichloro 1,2,2-Trifluoroethane; 1,2,2-Trichlorotrifluoroethane; 1,1,2-Trifluorotrichloroethane; 1,1,2-Trifluoro-1,2,2-Trichloroethane	<b>CFC-212</b>	<b>Hexachlorodifluoropropane [3182-26-1]</b> None
<b>CFC-114</b>	<b>1,2-Dichlorotetrafluoroethane [76-14-2]</b> Cryofluorane; Dichlorotetrafluoroethane; 1,2-Dichloro-1,1,2,2-Tetrafluoroethane; Dichloro-1,1,2,2-Tetrafluoroethane; Fluorocarbon 114; Freon 114; Halocarbon 114; Halon 242; Propellant 114; R-114; Refrigerant 114; Refrigerant R114	<b>CFC-213</b>	<b>Pentachlorotrifluoropropane [2354-06-5]</b> None
<b>CFC-115</b>	<b>Monochloropentafluoroethane [76-15-3]</b> Chloropentafluoroethane; Fluorocarbon 115; Freon 115; Genetron 115; Halocarbon 115; R-115; Refrigerant R115	<b>CFC-214</b>	<b>Tetrachlorotetrafluoropropane [29255-31-0]</b> None
<b>Halon 1211</b>	<b>Bromochlorodifluoromethane [353-59-3]</b> Chlorodifluorobromomethane	<b>CFC-215</b>	<b>1,2,2-Trichloropentafluoropropane [1599-41-3]</b> Trichloropentafuloropropane
<b>Halon 1301</b>	<b>Bromotrifluoromethane [75-63-8]</b> Fluorocarbon 13B1; Freon 13B1; H-1301; Halocarbon 13B1; R-13B1, Refrigerant 13B1; Refrigerant R13B1; Trifluorobromomethane; Trifluoromethyl Bromide; Trifluoromonobromomethane	<b>CFC-216</b>	<b>1,2-Dichloro-1,1,2,3,3,3-hexafluoropropane [661-97-2]</b> 1,2-Dichlorohexafluoropropane



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<b>Halon 2402</b>	<b>1,2 Dibromotetrafluoroethane [124-73-2]</b> 1,2-Dibromoperfluoroethane; Dibromotetrafluoroethane; 1,2-Dibromotetrafluoroethane; 1,2-Dibromo-1,1,2,2-Tetrafluoroethane; 1,1,2,2-Tetrafluoro-1,2-Dibromoethane	<b>CFC-217</b>	<b>Heptafluoropropyl chloride [422-86-6]</b> 1-Chloro-1,1,2,2,3,3,3-Heptafluoropropane
<b>CFC-13</b>	<b>Chlorotrifluoromethane [75-72-9]</b> Halocarbon 13; Trifluoromethyl Chloride		<b>Carbon tetrachloride [56-23-5]</b> Benzoinoform; carbona; Carbon Chloride; Carbon Tet; Flukoids; Methane Tetrachloride, Necatorina, Necatorine; Perchloromethane; Refrigerant R10, Tetrachlorocarbon, Tetraloromethane; Tetrafinol; Tetraform; Tetrasol, Univerm; Vermoestricid
<b>CFC-111</b>	<b>Pentachlorofluoroethane</b> Fluoropentachloroethane		<b>1,1,1-Trichloroethane [71-55-6]</b> Aerothene TT; Alpha-Truchloroethane; Chlorothene; Chlorothene NU; Chlorothene VG; Methyltrichloromethane; Methyl Chloroform; 1,1,1-TCE; Solvent 111; Triethane; <b>Methyl bromide [74-83-9]</b> Brom-O-Gas; Brom-O-Gaz; Bromot\methane; Brom-O-Sol; Celfume, Curafume, Dowfume, Dowfume MC-2; Dowfume MC-33, EDCO; Embafume; Halon1001; Haltax; Iscobrome; Kayafume; MB; MeBr; Metafume; Methogas; Meth-o-Gas; Monobromomethane; Profume; Rotox; Terabol, Terr-O-Gas; Terr-O-Gas 100; Zytox

**HEALTH HAZARD AND REACTIVE GASES  
(Approval: Larry McLouth ext. 5286)**

Ammonia (NH <sub>3</sub> )	Fluorine (F <sub>2</sub> )	Phosgene (COCl <sub>2</sub> )
Arsenic pentafluoride (AsF <sub>5</sub> )	Germanium tetrahydride (GeH <sub>4</sub> )	Phosphine (PH <sub>3</sub> )
Arsine (AsH <sub>3</sub> )	Hydrogen bromide (HBr)	Phosphorous pentafluoride (PF <sub>5</sub> )
Benzene in air	Hydrogen chloride (HCl)	Phosphorous trichloride (PCl <sub>3</sub> )
Boron trichloride (BCl <sub>3</sub> )	Hydrogen cyanide (HCN)	Phosphorous trifluoride (PF <sub>3</sub> )
Boron trifluoride (BF <sub>3</sub> )	Hydrogen fluoride (HF)	Selenium hexafluoride
Bromine pentafluoride	Hydrogen selenide (H <sub>2</sub> Se)	Silane (silicontetrahydride-SiH <sub>4</sub> )
Bromine trifluoride (BrF <sub>3</sub> )	Hydrogen sulfide (H <sub>2</sub> S)	silicon tetrachloride (SiCl <sub>4</sub> )
1,3-Butadiene (C <sub>4</sub> H <sub>6</sub> )	Iodine pentafluoride (IPF <sub>5</sub> )	Silicon tetrafluoride (SiF <sub>4</sub> )
Carbon monoxide (CO)	Methyl bromide (CH <sub>3</sub> Br)	Stibine (SbH <sub>3</sub> )
Carbonyl fluoride (COF <sub>2</sub> )	Methyl chloride (CH <sub>3</sub> Cl)	Sulfur dioxide (SO <sub>2</sub> )
Carbonyl sulfide	Methyl silane	Sulfur tetrafluoride (SF <sub>4</sub> )
Chlorine (Cl <sub>2</sub> )	Nickel carbonyl Ni(CO) <sub>4</sub>	Sulfuryl fluoride (SO <sub>2</sub> F <sub>2</sub> )
Chlorine trifluoride (ClF <sub>3</sub> )	Nitric oxide (NO)	Tellurium hexafluoride (TeF <sub>6</sub> )
Cyanogen (C <sub>2</sub> N <sub>2</sub> )	Nitrogen dioxide (NO <sub>2</sub> )	Tungsten hexafluoride (WF <sub>6</sub> )
Cyanogen chloride (ClCN)	Nitrogen trifluoride (NF <sub>3</sub> )	Vinyl chloride (C <sub>2</sub> H <sub>3</sub> Cl)
Diborane (H <sub>6</sub> B <sub>2</sub> )	Nitrosyl chloride (NOCl)	
Dichlorosilane (SiH <sub>2</sub> Cl <sub>2</sub> )	Oxygen difluoride (OF <sub>2</sub> )	

**PROCUREMENT CARD (Pcard) AND LOW VALUE PURCHASES  
RESTRICTED ITEMS, CHEMICALS AND GASES  
August 2003**

**REACTIVE, EXPLOSIVE & UNIQUE HAZARD  
CHEMICALS**

**(Notification:** Larry McLouth ext. 5286)

2-Furaldehyde  
Beryllium  
Boron  
Cesium  
Dichloroborane  
Francium  
Lithium  
Rubidium  
Sodium  
Phosphorous, yellow  
Picric acid  
Potassium

**CHEMICALS KNOWN TO POSSESS LETHAL OR  
INCAPACITATING TOXICITY**

**(Notification:** Larry McLouth ext. 5286)

Amiton: O,O-Diethyl S-[2-(diethylamino)ethyl]  
phosphorothiolate and corresponding alkylated or protonated  
salts [78-53-5]  
O-Alkyl (H or <C10, incl. cycloalkyl) S-2-dialkyl(Me, Et, n-Pr  
or i-Pr)-aminoethyl alkyl (Me, Et, n-Pr or i-Pr)  
phosphonothiolates and corresponding alkylated or  
protonated salts  
O-Alkyl (<C10, incl. cycloalkyl) alkyl (Me, Et, n-Pr or i-Pr)-  
phosphonofluoridates  
O-Alkyl (<C10, incl. cycloalkyl) N,N-dialkyl (Me, Et, n-Pr or i-  
Pr) phosphoramidocyanidates  
Sarin: O-Isopropyl methylphosphonofluoridate [107-44-8]  
Soman: O-Pinacolyl methylphosphonofluoridate [96-64-0]  
Tabun: O-Ethyl N,N-dimethyl phosphoramidocyanidate [77-  
81-6]  
VX: O-Ethyl S-2-diisopropylaminoethyl methyl  
phosphonothiolate [50782-69-9]

**Sulfur mustards:**

2-Chloroethylchloromethylsulfide [2625-76-5]  
Mustard gas: Bis(2-chloroethyl)sulfide [505-60-2]  
Bis(2-chloroethylthio)methane [63869-13-6]

**Sesquimustard:**

1,2-Bis(2-chloroethylthio)ethane [3563-36-8]  
1,3-Bis(2-chloroethylthio)-n-propane [63905-10-2]  
1,4-Bis(2-chloroethylthio)-n-butane [142868-93-7]  
1,5-Bis(2-chloroethylthio)-n-pentane [142868-94-8]  
Bis(2-chloroethylthiomethyl)ether [63918-90-1]

**O-Mustard:**

Bis(2-chloroethylthioethyl)ether [63918-89-8]

**Lewisites:**

Lewisite 1: 2-Chlorovinylchloroarsine [541-25-3]  
Lewisite 2: Bis(2-chlorovinyl)chloroarsine [40334-69-8]  
Lewisite 3: Tris(2-chlorovinyl)arsine [40334-70-1]

**Nitrogen mustards:**

HN1: Bis(2-chloroethyl)ethylamine [538-07-8]  
HN2: Bis(2-chloroethyl)methylamine [51-75-2]  
HN3: Tris(2-chloroethyl)amine [555-77-1]  
Saxitoxin [35523-89-8]

Ricin [9009-86-3]  
Alkyl (Me, Et, n-Pr or i-Pr) phosphonyldifluorides  
DF: Methylphosphonyldifluoride [676-99-3]  
O-Alkyl (H or <C10, incl. cycloalkyl)  
O-2-dialkyl(Me, Et, n-Pr or i-Pr)-aminoethyl alkyl(Me, Et,  
n-Pr or i-Pr) phosphonites and corresponding alkylated  
or protonated salts  
QL: O-Ethyl O-2-diisopropylaminoethyl  
methylphosphonite [57856-11-8]  
Chlorosarin: O-Isopropyl methylphosphonochloridate  
[1445-76-7]  
Chlorosoman: O-Pinacolyl methylphosphonochloridate  
[7040-57-5]  
PFIB: 1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-  
propene [382-21-8]  
BZ: 3-Quinuclidinyl benzilate (\*) [6581-06-2]  
Chemicals containing a phosphorus atom to which is  
bonded on a methyl, ethyl or propyl (normal or iso)  
group but not further carbon atoms  
Methylphosphonyl dichloride [676-97-1]  
Dimethyl methylphosphonate [756-79-6]  
Exemption: Fonofos: O-Ethyl S-  
phenylethylphosphonothiolothionate [944-22-9]  
N,N-Dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidic  
dihalides  
Dialkyl (Me, Et, n-Pr or i-Pr) N,N-dialkyl(Me, Et, n-Pr or  
i-Pr)-phosphoramidates  
Arsenic trichloride [7784-34-1]  
2,2-Diphenyl-2-hydroxyacetic acid [76-93-7]  
Quinuclidin-3-ol [1619-34-7]  
N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl-2-chlorides  
and corresponding protonated salts  
N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-ols and  
corresponding protonated salts  
Exemptions: N,N-Dimethylaminoethanol and  
corresponding protonated salts [108-01-0]  
N,N-Diethylaminoethanol and corresponding protonated  
salts [100-37-8]  
N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-thiols  
and corresponding protonated salts  
Thiodiglycol: Bis(2-hydroxyethyl)sulfide [111-48-8]  
Pinacolyl alcohol: 3,3-Dimethylbutan-2-ol [464-07-3]  
Phosgene: Carbonyl dichloride [75-44-5]  
Cyanogen chloride [506-77-4]  
Hydrogen cyanide [74-90-8]  
Chloropicrin: Trichloronitromethane [76-06-2]  
Phosphorus oxychloride [10025-87-3]  
Phosphorus trichloride [7719-12-2]  
Phosphorus pentachloride [10026-13-8]  
Trimethyl phosphite [121-45-9]  
Triethyl phosphite [122-52-1]  
Dimethyl phosphite [868-85-9]  
Diethyl phosphite [762-04-9]  
Sulfur monochloride [10025-67-9]  
Sulfur dichloride [10545-99-0]  
Thionyl chloride [7719-09-7]  
Ethyl-diethanolamine [139-87-7]  
Methyl-diethanolamine [105-59-9]  
Triethanolamine [102-71-6]



**PROCUREMENT CARD (Pcard) AND LOW VALUE PURCHASES  
RESTRICTED CHEMICALS AND GASES  
October 2003**

**RADIOACTIVE MATERIALS AND ISOTOPES**

(Notification: Steve Sohner ext. 6228)

Deuterium Gas (D2)  
Heavy water (D20)  
Chemicals containing radionuclides including  
Tritium [H-3]  
Natural uranium [u]  
Depleted uranium, enriched uranium  
Thorium [Th]  
Protactinium [Pa]  
Transuranics [atomic number greater than 92]  
Radioactive sealed sources  
Instruments and articles containing radioactive sealed sources  
Special nuclear material [SNM]) including  
Gas chromatographs with electron capture devices  
Liquid scintillation counters  
Neutron moisture probes  
Neutron soil density guage  
Signs containing tritium  
Static eliminators

**EQUIPMENT GENERATING LASER, RADIOWAVE, MICROWAVE AND IONIZING RADIATION**

(Notification: Ted deCastro ext. 5256)

Class 3 and 4 lasers  
Microwave sources (excluding consumer products such as microwave ovens)  
Radiowave sources  
X ray sources and equipment including accessory devices